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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SAIN, GAUTAM

ART UNIT PAPER NUMBER

2176

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/976,818	KOBAYASHI, HIRONARI	
	Examiner	Art Unit	
	Gautam Sain	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/01,2/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 101

- 1) 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1-1) Claims 12, 13 and 14 are invention that are directed to non-statutory subject matter under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 12, 13, 14 set forth non-functional descriptive material but fail to set forth physical structures or materials comprising of hardware or a combination of hardware and software within the technological arts (ie., a computer) to produce a “useful, concrete and tangible” result. For example, claims 12-14, the “method” reads on a mental construct/abstract idea or at best a computer program, per se. The language such as “storing audio data”, etc., does not clearly define structural elements and are not tangibly embodied on a computer readable medium. The fact that the respective dependant claims 15, 16 and 17 state “program is run on a computer” implies that the methods of 12, 13 and 14 can be executed without the use of a computer. Claims 12, 13 and 14 are interpreted as software per se, abstract ideas or mental construct and not tangibly embodied on a computer readable medium or hardware.

Claim Rejections - 35 USC § 102

- 2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2-1) Claims 1, 2, 3, 6, 12, 15 rejected under 35 U.S.C. 102(e) as being anticipated by Duvall et al (US 6166731, filed Sep 24, 1997).

Regarding claim 1, Duvall teaches

a first storage device that stores audio data, the audio data stored in said first storage device being managed dividedly as one or more partial audio data (ie., audio/visual database for audio data)(col 5,lines 60-65; col 6,line 16; fig 7, item 715 shows a datastore for audio data);

a second storage device that stores track data foreach of a piurality of tracks, the track data for each of the tracks including informatlon for associating at least one of the partial audio data, stored in said first storage device, with the track and information for managing a manner of reproducing the partial audio data associated with the track (ie., audio track data on a disk, necessary to play back audio parameters specified in a list; fig 6 shows a GUI for track data management)(col 3,lines 4-12); and

a processor coupied with said first storage device and said second storage device. said processor being adapted to (ie., processor)(col 5,lines 66)

perform an editing operation for edltng the track data for a desired one of the tracks, in accordance wlth an editing instruction (ie., editing operations for tracks; GUI)(col 4, lines 60-67; 25-36); and

perform control to store the edited track data for the desired track in said second storage device while preserving the track data before the editing (ie., GUI allows engineers to edit tracks on separate stations on a network; examiner broadly interprets second storage device as an storage device other than the one that stores audio data)(col 4, line 65-col 5, line 5).

Regarding claim 2, Duvall teaches *wherein the editing operation performed by said processor for editing the track data includes An audio data editing a reproduction style of the at least one partial audio data associated with the track through a change, addition or deletion of data (ie., "clear" operation replaces as an overwrite operation of track)(col 4, lines 41-45).*

Regarding claim 3, Duvall teaches *wherein said processor is further adapted to, in accordance with the track data stored in said second storage device, reproduce the partial audio data corresponding to the track data from said first storage device (ie., copying and pasting audio onto a track on another station)(col 2, lines 25-30).*

Regarding claim 6, Duvall teaches *when an undoing instruction is given, the track data before the editing stored in said second storage device is used as track data of the track in place of the edited track data (ie., examiner broadly interprets undo operation as another editing operation similar to cut, copy, paste, ... and it is well known in the art of editing to have undo instructions in editors (ie., and MS-Word word processor, Wordperfect, etc.) have undo operation in the edit tab; Duvall teaches the Edit tab on the GUI)(col 4, lines 27-35; fig 6).*

Regarding claim 12, Duvall teaches *a step of storing audio data in a first storage*

device, the audio data stored in said first storage device being managed dividedly as one or more partial audio data (ie., audio/visual database for audio data)(col 5,lines 60-65; col 6,line 16; fig 7, item 715 shows a datastore for audio data);
a step of storing track data in a second storage device for each of a plurality of tracks, the track data for each of associating at least one of the partial audio data, stored in said first storage device, with the track and information for managing a manner of reproducing the partial audio data associated with the track (ie., audio track data on a disk, necessary to play back audio parameters specified in a list; fig 6 shows a GUI for track data management)(col 3,lines 4-12); and
a step of editing the track data for a desired one of the tracks, in accordance with an editing instruction (ie., editing operations for tracks; GUI)(col 4, lines 60-67; 25-36); and
a step of performing control to store the edited track data for the desired track in said second storage device while preserving the track data before the editing (ie., GUI allows engineers to edit tracks on separate stations on a network; examiner broadly interprets second storage device as an storage device other than the one that stores audio data)(col 4, line 65-col 5, line 5).

Regarding claim 15, Duvall teaches *program is run on a computer* (ie., editing station)(fig 3).

2-2) Claims 7, 8, 9, 10, 11, 13, 14, 16, 17 are rejected under 35 U.S.C. 102(a) as being anticipated by Inoue et al (US 6097557, filed Aug 1, 2000).

Regarding claim 7, Inoue teaches *a first storage device randomly accessible on a cluster-by-cluster basis, audio data being stored dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity are stored in each of the clusters (ie., data is written to disk in units corresponding to the number of clusters)(col 6, lines 2-26);*

a second storage device that stores track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data to be reproduced for at least one of the plurality of clusters (ie., track data store from the first track to the last track on different disks)(col 7, lines 20-30)(data recorded sequentially)(col 8, line 17); and

a processor coupled with said first storage device and said second storage device, said processor being adapted to (ie., server, main controller)(fig 1, items 12, 13):

when the particular quantity of audio data indicated by the track data is less than a second data quantity in at least one of the clusters, combine the audio data of the one cluster with the audio data of another cluster that precedes or follows the one cluster in the reproduction order (ie., sequential data string recorded. Continuously without interruptions by specifying redundant areas)(col 8, lines 5-37); and

preserve the combined audio data in a reproducing when the particular cluster separate from the at least one cluster, wherein said second data quantity is smaller than said first data quantity (ie., data rewriting occurs on a cluster basis sequentially)(col 6, lines 30-42).

Regarding claim 8. Inoue teaches *wherein said processor is further adapted to edit any one of a plurality of clusters represented by the reproduction order, said plurality of clusters including a cluster where a data quantity of the audio data to be reproduced is smaller than said second data quantity (ie., data can be written on the optical in units corresponding to an integer number times of a cluster)(col 6, lines 6-30).*

Regarding claim 9, Inoue teaches *a first storage device randomly accessible on a cluster-by-cluster basis, audio data being stored dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity are stored in each of the clusters (ie., data is written to disk in units corresponding to the number of clusters)(col 6, lines 2-26); a second storage device that stores track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data to be reproduced for at least one of the plurality of clusters (ie., track data store from the first track to the last track on different disks)(col 7, lines 20-30)(data recorded sequentially)(col 8, line 17); and a processor coupled with said first storage device and said second storage device said processor being adapted to (ie., server, main controller)(fig 1, items 12, 13): read out and reproduce the audio data of the clusters from said first storage device, in accordance with the track data stored in said second storage device and in the reproduction order indicated by the track data (ie., sequential data string recorded. Continuously without interruptions by specifying redundant areas)(col 8, lines 5-37); and*

when a reproducing cluster is prepared for a particular one of the plurality of clusters represented by the reproduction order and when the particular cluster is to be reproduced during reproduction of the plurality of clusters in the reproduction order, read out and reproduce the audio data from the reproducing cluster rather than from the particular cluster (ie., data recorded as a sequential data string and not recorded on the recording medium, but discretely and transiently storing read-out data in a memory during reproduction and by writing data in the memory)(col 8, lines 15-24).

Regarding claim 10, Inoue teaches *wherein when a data quantity of the particular cluster is less than said second data quantity the reproducing cluster is used to combine the audio data of the particular cluster with the audio data of another cluster that precedes or succeeds the particular cluster in the reproduction order indicated by the track data and then preserve the combined audio data, and wherein the reproducing cluster is a cluster separate from the particular cluster and said second data quantity is smaller than said first data quantity (ie., sequential data string is recorded onto optical disk or other media, data from start address of the slot reproduced to the next to the end address)(col 8, lines 1-20)(data is written on optical disk in units corresponding to an integer number of cluster and interleaving within the cluster)(col 6, lines 24-30)(examiner broadly interprets that clusters on various media are less in quantity prior to their recording).*

Regarding claim 11, Inoue teaches *wherein said processor is further adapted to edit any one of the plurality of clusters represented by the reproduction order, said plurality of clusters including the particular cluster (ie., data written (thus*

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edited) interleaving within clusters and rewriting made on the cluster basis)(col 6, lines 35-42; lines 64-67).

Regarding claim 13, Inoue teaches *a step of storing, in a first storage device randomly accessible on a cluster-by-cluster basis, audio data dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity are stored in each of the clusters (ie., data is written to disk in units corresponding to the number of clusters)(col 6, lines 2-26);*
a step of storing, in a second storage device, track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data to be reproduced for at least one of the plurality of clusters (ie., track data store from the first track to the last track on different disks)(col 7, lines 20-30)(data recorded sequentially)(col 8, line 17);
a step of, when the particular quantity of audio data indicated by the track data is less than a second data quantity in at least one of the clusters, combining the audio data of the one cluster with the audio data of another cluster that precedes or follows the one cluster in the reproduction order; and a step of preserving the combined audio data in a reproducing cluster separate from the at least one cluster, wherein said second data quantity is smaller than said first data quantity (ie., sequential data string recorded. Continuously without interruptions by specifying redundant areas)(col 8, lines 5-37).

Regarding claim 14, Inoue teaches a step of storing, in a first storage device randomly accessible on a cluster-by-cluster basis, audio data dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity are stored in each of the clusters (ie., data is written to disk in units corresponding to the number of clusters)(col 6, lines 2-26);

a step of storing, in a second storage device, track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data to be reproduced for at least one of the plurality of clusters (ie., track data store from the first track to the last track on different disks)(col 7, lines 20-30)(data recorded sequentially)(col 8, line 17);

a step of reading out and reproducing the audio data of the clusters from said first storage device, in accordance with the track data stored in said second storage device and in the reproduction order indicated by the track data (ie., sequential data string recorded. Continuously without interruptions by specifying redundant areas)(col 8, lines 5-37); and

step of, when a reproducing cluster is prepared for a particular one of the plurality of clusters represented by the reproduction order and when the particular cluster is to be reproduced during reproduction of the plurality of clusters in the reproduction order, reading out and reproducing the audio data from the reproducing cluster rather than from the particular cluster (ie., data recorded as a sequential data string and not recorded on the recording medium, but discretely and transiently storing read-out

data in a memory during reproduction and by writing data in the memory)(col 8, lines 15-24) .

Regarding claim 16, Inoue teaches *program is run on a computer* (ie., server, main controller, etc.)(Inoue, fig 1, items 11, 12).

Regarding claim 17, Inoue teaches *program is run on a computer* (ie., server, main controller, etc.)(Inoue, fig 1, items 11, 12).

Claim Rejections - 35 USC § 103

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3-1) Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duvall (as cited above), in view of Inoue et al (US 6097557, issued Aug 1, 2000).

Regarding claim 4, Duvall does not expressly teach, but Inoue teaches the *information for managing the manner of reproducing the partial audio data, information defining a use range of one or more partial audio data to be used in the track and information indicative of respective reproduction timing of the one or more partial audio data* (ie., timing chart for command data between audio transfer unit and the recording unit when transferring)(col 16, lines 27-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Duvall to include a timing chart for command data between audio

transfer unit and the recording unit when transferring as taught by Inoue, providing the benefit of efficient recording of audio data on the magneto-optical disc (Inoue, col 1, lines 60-63) and improving the utilization efficiency of the recording medium (Inoue, col 3, lines 20-30).

Regarding claim 5, Duvall does not expressly teach, but Inoue teaches the *editing operation for editing the track data includes editing for changing the partial audio data, and wherein the editing for changing the partial audio data changes at least one of the information defining the use range of the partial audio data and the information indicative of the reproduction timing of the partial audio data included in the track data* (ie., timing chart for command data between audio transfer unit and the recording unit when transferring)(col 16, lines 27-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Duvall to include a timing chart for command data between audio transfer unit and the recording unit when transferring as taught by Inoue, providing the benefit of efficient recording of audio data on the magneto-optical disc (Inoue, col 1, lines 60-63) and improving the utilization efficiency of the recording medium (Inoue, col 3, lines 20-30).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam Sain whose telephone number is 571-272-4096. The examiner can normally be reached on M-F 9-5 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6.5.
GS



SANJIV SHAH
PRIMARY EXAMINER